

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Problem Image Mailbox.**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Jon Opsal et al.

Appln. No.: 09/906,290

Filed: July 16, 2001

For: REAL TIME ANALYSIS OF
PERIODIC STRUCTURES ON
SEMICONDUCTORS

Group Art: 2877

Examiner: Unknown

POWER OF ATTORNEY BY ASSIGNEE

Commissioner for Patents
Washington, D.C. 20231

Sir:

THERMA-WAVE, INC., assignee of the entire right title and interest in the above-identified application by assignment dated July 24, 2001 and July 19, 2001, which assignment was recorded in the Patent and Trademark Office on September 18, 2001, at Reel 12172, frame 165, hereby appoints the members of the firm of STALLMAN & POLLOCK LLP, a firm composed of:

Michael A. Stallman	29,444	Kathleen A. Frost	37,326
Michael J. Pollock	29,098	Brian J. Keating	39,520

as its attorneys with full power of substitution to prosecute this application and to transact all business in the Patent and Trademark Office in connection therewith.

Please direct all correspondence regarding this application to the following:

STALLMAN & POLLOCK LLP
Attn: Michael A. Stallman
121 Spear Street, Suite 290
San Francisco, CA 94105

Telephone: (415) 512-1312
Facsimile: (415) 512-1362

Dated: 12-4-01

THERMA-WAVE, INC.

By: Martin Schwartz
Name: Martin Schwartz
Title: Chief Executive Officer



UNITED STATES
PATENT AND
TRADEMARK OFFICE

TWI-14100

NOVEMBER 21, 2001

MICHAEL A. STALLMAN
121 SPEAR STREET
SUITE 290
SAN FRANCISCO, CA 94105

PTAS

RECEIVED

NOV 30 2001

STALLMAN & POLLOCK LLP

Under Secretary of Commerce For Intellectual Property and
Director of the United States Patent and Trademark Office
Washington, DC 20231
www.uspto.gov



101850729A

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 09/18/2001

REEL/FRAME: 012172/0165
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
OPSAL, JON

DOC DATE: 07/24/2001

ASSIGNOR:
CHU, HANYOU

DOC DATE: 07/19/2001

ASSIGNEE:
THERMA-WAVE, INC.
1250 RELIANCE WAY
FREMONT, CALIFORNIA 94539

SERIAL NUMBER: 09906290
PATENT NUMBER:

FILING DATE: 07/16/2001
ISSUE DATE:

DOROTHY BASMA, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

09-21-2001

Pocket No.: TWI-14100

FORM PTO-1595 (Modified)
(Rev. 6-93)
OMB No. G651-0011 (Exp. 4/94)
Copyright 1994-97 LegalStar
P08/REV02



EE1

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

101850729

Tab settings → → → ▼ ▼ ▼ ▼ ▼

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Jon Opsal
Hanyou Chu

9-17-01

2. Name and address of receiving party(ies):

Name: THERMA-WAVE, INC.

Internal Address: _____

Street Address: 1250 Reliance WayCity: FremontState: CA ZIP: 94539Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other _____Execution Date: 7/24/2001 & 7/19/2001

4. Application number(s) or registration numbers(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s)

B. Patent No.(s)

09/906,290

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Michael A. StallmanInternal Address: Suite 290Street Address: 121 Spear StreetCity: San FranciscoState: CA ZIP: 941056. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41):.....\$ 40.00☒ Enclosed - Any excess or insufficiency should be credited or debited to deposit account☐ Authorized to be charged to deposit account

8. Deposit account number:

50-1703

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Michael A. Stallman (Reg. No. 29,444)

Name of Person Signing

Signature

Sept. 10, 2001

Date

Total number of pages including cover sheet, attachments, and document: 3

DO NOT USE THIS SPACE

09/21/2001 DBYRNE 00000007 09906290

01 FC:581

40.00

ASSIGNMENT

WHEREAS, WE, Jon Opsal and Hanyou Chu, hereinafter referred to as "ASSIGNORS", have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: REAL TIME ANALYSIS OF PERIODIC STRUCTURES ON SEMICONDUCTORS

Application (Declaration/Oath) Execution Date: July 24, 2001 and July 19, 2001

Filing Date: July 16, 2001

Application No.: 09/906,290

WHEREAS, THERMA-WAVE, INC., a corporation of the State of Delaware, 1250 Reliance Way, Fremont, California 94539 hereinafter referred to as "ASSIGNEE", is desirous of acquiring the entire right, title and interest in the said invention and application and in any Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for One Dollar (\$1.00) and other good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignee, and Assignee's successors and assigns, all right, title and interest in and to the said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, prolongations or extensions thereof, said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignors had this assignment and transfer not been made, to the full end and term of any such Letters Patent.

Assignors further agree that they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignor has hereunto signed his/her name to this assignment on the date indicated below.

Date: 7-24-01

Jon Opsal

State of _____

County of _____

On _____ before me, _____ personally appeared _____ personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature of Notary

SEAL

IN TESTIMONY WHEREOF, Assignor has hereunto signed his/her name to this assignment on the date indicated below.

Date: 7-19-2001

[Signature]
Hanyou Chu

State of California

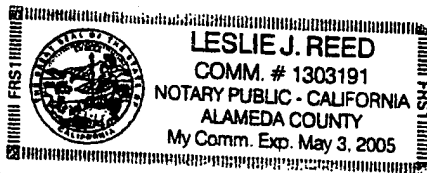
County of Alameda

On July 19, 2001 before me, LESLIE J. REED, Notary,
personally appeared HANYOU CHU personally known to me or proved to me on the
basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and
acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their
signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

[Signature]
Signature of Notary

SEAL



DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

REAL TIME ANALYSIS OF PERIODIC STRUCTURES ON SEMICONDUCTORS

the specification of which (check one) ☐ is attached hereto or ☒ was filed on July 16, 2001
as Application No. 09/906,290 and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

			Priority Claimed	
			Yes	No
Number	Country	Day/Month/Year Filed	<input type="checkbox"/>	<input type="checkbox"/>
Number	Country	Day/Month/Year Filed	<input type="checkbox"/>	<input type="checkbox"/>

I hereby claim the benefit under 35 U.S.C. § 119(3) of any United States provisional application(s) below:

Application Number	Filing Date
Application Number	Filing Date
Application Number	Filing Date

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Application Number	Filing Date	Status: Patented, Pending, Abandoned
--------------------	-------------	--------------------------------------

Application Number	Filing Date	Status: Patented, Pending, Abandoned
--------------------	-------------	--------------------------------------

Application Number	Filing Date	Status: Patented, Pending, Abandoned
--------------------	-------------	--------------------------------------

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Jon Opsal

Inventor's signature 

7/29/01


Date

Residence 2295 Norwood Road, Livermore, California 94550

Citizenship U.S.A.

Post Office Address 2295 Norwood Road, Livermore, California 94550

Full name of second joint inventor, if any, Hanyou Chu

Inventor's signature 

July 19, 2001

Date

Residence 422-9 Galleria Drive, San Jose, California 95134

Citizenship Canadian

Post Office Address 422-9 Galleria Drive, San Jose, California 95134